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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HOANG, THAI D

ART UNIT PAPER NUMBER

2667

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/717,292

Applicant(s)

SEDDIGH ET AL.

Examiner

Thai D Hoang

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Application filed on 11/22/2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11, 12, 15-23, 25, 29-37, 39 and 40 is/are rejected.
- 7) ☒ Claim(s) 10, 13, 14, 24, 27, 28, 38, 41 and 42 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1-6, 11-12, 15-20, 25-26, 29-34, and 39-40 are rejected under 35 U.S.C. 102(e) as being unpatentable over Yu, US Patent No. 6,625,150 B1.

Regarding claims 1, 15 and 29, Yu discloses a method and system called policy engine architecture for controlling data flow. Yu teaches that the system comprising (figs. 2-3):

a policy-based application 102 (typically a legacy application) includes with its own policy database 202 and flow classifier logic 204. Some of the packets of a stream are provided (via a data path shown logically as 401 in FIG. 3) to the flow classifier 204. The flow classifier 204 uses the policy database 202 to determine the action

specifications 203b that correspond to the policies of the flow to which the stream belongs; col. 4, lines 48-55; col. 3, lines 51-60 (a data flow managing mechanism configured to identify, track, and manage said data flow; a rule set including a plurality of rules for comparing information contained in said data flow with pre-specified values);

the action specifications are provided to the policy cache 209. Using the policy cache 209, the stream classifier 207 determines which action processors 206 are to be activated for the packets of the stream. Specifically, the stream classifier 207 matches the packets to a particular stream specification 208 and then, using the corresponding action specifications 210, activates the proper action processors 206; col. 4, lines 55-57; col. 5, lines 5-11 (a configurable classification rule engine for classifying said data flow into one of a plurality of traffic classes based on results of said comparisons between said rule and said pre-specified values; a configuration file for configuring said classification rule engine and for specifying said pre-specified values and information regarding at least one of said data flow, said rule set, and said plurality of traffic classes)

Furthermore, Yu teaches that the policy cache can be modified if network requirements changes. In addition to that, the order of different policy enforcement can also be programmed to achieve different application requirements; col. 6, lines 27-30 (wherein said configuration file comprises a format that allows for the modification and reconfiguration of said classification rule engine, said data flow, said rule set, and said plurality of traffic classes).

Regarding claims 2, 16 and 30, Yu teaches that the policy specifies both what traffic is to be subject to control and how the traffic is to be controlled. Thus, a policy

typically has two components--a flow classification specification 203a and an action specification 203b; wherein the flow classification specification 203a provides the screening criteria for the flow classifier logic 204 to sort network traffic into flows; and wherein the action specification 203b describes what to do with packets that match an associated flow classification specification 203a; col. 3, lines 27-46 (data flow managing mechanism includes a flow table mechanism configured to perform at least one of capturing said information contained in said data flow, mapping a packet to a data flow, identifying said data flow based on said captured information, registering active data flows, and deleting inactive data flows).

Regarding claims 3, 17 and 31, Yu discloses in figure 3 that the flow classifier 204 classifies the incoming packet according to one or more classification specifications 203a and finds one or more corresponding action specifications 203b. The found action specifications 203b are then provided to the policy cache 209 for later execution by the policy engine 106 to enforce the policy; col. 3, lines 53-67 (plurality of rules comprise a data structure including event indicia for indicating the invocation of one of said rules, condition indicia for representing a comparison or condition between said one of said rules and said pre-specified values, and action indicia for indicating the execution of an action based on results of said comparison).

Regarding claims 4, 18 and 32, Yu teaches that the application processors 206 operate based on the stream classifier 207 of the policy engine 106 determining that a packet belongs to a particular stream and activating the appropriate action processors 206 according to action specifications 210 in a policy cache 209; col. 3, lines 5-9; col. 5,

lines 3-11(action indicia includes information for at least one of designating said data flow as one of said traffic classes and chaining to another of said rules).

Regarding claims 5, 19 and 33, Yu discloses that the system can be programmed to achieve different policy enforcement or a different application requirement; col. 6, lines 27-30. It indicates that the data flow could be classified in accordance with a dynamic scheme (classification engine classifies said data flow into one of said traffic classes in accordance with a dynamic classification scheme).

Regarding claims 6, 20 and 34, Yu teaches that the application processors 206 operate based on the stream classifier 207 of the policy engine 106 determining that a packet belongs to a particular stream and activating the appropriate action processors 206 according to action specifications 210 in a policy cache 209; col. 3, lines 5-9; col. 5, lines 3-11 (said data flow managing mechanism identifies said data flow as a particular type of traffic).

Regarding claims 11-12, 25-26 and 39-40, Yu discloses that the incoming data packets are classified and executed on each application processor based on application information; col. 3, lines 5-10; col. 4, lines 57-67. Therefore, it indicates that the system classifies data packets into multiple traffic classes at layer 7 of the OSI system.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-9, 21-23 and 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yu, US Patent No. 6,625,150B1, in view of Taniguchi et al, US Patent No. 6445679 B1, hereafter referred to as Yu and Taniguchi respectively.

Regarding claims 7, 21 and 35, Yu does not disclose the system comprises a traffic monitoring mechanism configured to monitor attributes of the data flow and to provide update information to the data flow managing mechanism. However, Taniguchi teaches these features; col. 37, lines 36-64. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt monitor method disclosed by Taniguchi into Yu's system in order to utilize bandwidth system.

Regarding claims 8-9, 22-23 and 36-37, Yu does not teach the system comprises a plurality of traffic monitors, each of said traffic monitors being capable of monitoring and measuring at least one predetermined attribute of said data flow and wherein the traffic monitors comprise a data structure including, identifier indicia for identifying a type of traffic monitor, and value indicia for indicating a value measured by said traffic monitor. However, Taniguchi discloses these features with only one controller; col. 17, lines 14-30; col. 20, lines 36-47; col. 29, lines 8-23; col. 37, lines 36-64. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt the plurality of monitor into Yu's system in order to speed up the system and adapt monitor method disclosed by Taniguchi into Yu's system in order to utilize bandwidth system.

Allowable Subject Matter

Claims 10, 13-14, 24, 27-28, 38 and 41-42 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to the application:

US Patent No. 6,587,466 B1, Bhattacharya et al., disclose "Search tree for policy based packet classification in communication networks."

US Patent No. 6,594,268, Aukis et al., disclose "Adaptive routing system and method for QOS packet networks."

US Patent No. 6,598,034, Kloth discloses "Rule based IP data processing."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (703) 305-3232. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang


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SUPERVISORY PATENT EXAMINER
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5/17/08